A NEW MECHANISM FOR CELL ROUTING IN A MULTI-STAGE FABRIC

WITH INPUT QUEUING

ABSTRACT OF THE DISCLOSURE

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A head of line (HOL) blocking count value, which is directly proportional to the committed traffic load for traffic flow through an output port within a multi-stage switch mesh, is computed for a path by adding the values

10 associated with all output ports within the path.   In selecting a route, all paths from the source to the destination are identified and sorted by head of line blocking count value. Rather than selecting a path based on traffic load, the path having the lowest head of line

15 blocking count value and sufficient capacity for the requested traffic is selected, with selection between paths having equal head of line blocking count values being made based on traffic load.